

**MR. BUSH'S NATIONAL ENERGY PLAN -
A CASE STUDY IN ETHICAL POLICY ASSESSMENT**

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Vincent di Norcia PhD
Ethics & Sustainability
Author, Consultant, Speaker
294 Cundles Rd. West
Barrie, Ontario L4N 7C9
705.725.1280 / mobile: 705.790.0437
vdn@sympatico.ca / www.dinorcia.net

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*Everything Flows. Heraclitus.*

**ABSTRACT**

One of President George W. Bush's early initiatives was to ask Vice President Dick Cheney to chair a task force and propose a national energy strategy. In spring 2001 it was presented in the National Energy Policy Development Group's report (NEPD). It contrasts strongly with the Clean Energy Future (CEF) strategy proposed in a Department of Energy report in late 2000. To compare and assess these two complex proposals, I will lay out a multiple criteria, 'Values Integration' (VI) policy assessment framework. After explaining that framework, I summarize the NEPD proposals and some of the comments on it, and then outline the Department of Energy's CEF strategy. While both approaches seek to balance energy, economic and environmental concerns and share some assumptions, the VI framework suggests that the CEF approach is preferable to the NEPD group's as a platform for developing 21<sup>st</sup> century U.S. public policy on the energy question. In conclusion, I suggest that much more may well be needed if a major environmental crisis is to be prevented from developing in the coming decades.

Author's Bio: Vincent di Norcia, is the author of *Hard Like Water Ethics In Business* (Oxford University Press, Toronto: 1998), and an ethics and sustainability consultant, a part time instructor in sustainability at Ryerson University, Toronto, and in Classics at Georgian College, University Partnership Centre, Barrie, and Emeritus Professor of Philosophy at the University of Sudbury in Sudbury, Ontario.

**MR. BUSH'S ENERGY CRISIS –  
A CASE STUDY IN ETHICAL POLICY ASSESSMENT**

**VINCENT DI NORCIA**

Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy.

U.S. Vice President Dick Cheney. 30 April, 2001.<sup>1</sup>

As the Vice President suggested in his somewhat controversial statement, energy policy involves complex links between the public and private goods respecting energy use. To disentangle these intricate skeins, requires clarity about political ethics. To that end I will lay out an economic and environmental Values Integration' (VI) energy policy assessment framework. On that basis I will compare the Energy Supply Increase (ESI) strategy presented in President George W. Bush's National Energy Policy Development Group (NEPD) in spring 2001, with the Clean Energy Future (CEF) scenario proposed in a Department of Energy report in late 2000, which still represents an advanced model for moving off oil and shifting to a green energy socio-economic paradigm. I conclude by arguing that, while the CEF model is preferable to the NEPD strategy on both economic and environmental grounds, the EEVI framework, in contrast to conventional ideologies, suggests a need for a more economically and technological innovative and environmentally aggressive 'CEF+' approach to global warming and ending our addiction to oil, if a major 21<sup>st</sup> century environmental crisis is to be prevented.<sup>2</sup> And if we are to shift to a new, technically innovative and dynamic green economy. This suggests we need a more forceful 'CEF+' approach than either the ESI or CEF scenario.

1 A Values Integration Assessment Framework

In order to enjoy some degree of credibility in this hotly contested, highly uncertain field, and to clarify the tangle of interlinked ethical, cognitive, and political questions that the energy problem involves, an appropriate multiple criteria public energy policy assessment framework is needed.<sup>3</sup> The Values Integration assessment framework I will use to assess the NEPD and CEF approaches to U.S. 21<sup>st</sup> century energy policy involves eight criteria, as follows. A good U.S. 21<sup>st</sup> century energy policy, should, it suggests...

1. Minimize the risk of a major environmental crisis (e.g., global warming);
2. Minimize the risk of a major economic crisis;
3. Prefer the public interest over private interests;<sup>4</sup>
4. Follow the best available scientific research;
5. Interlink energy efficiency and environmental benefits;
6. Integrate energy efficiency and economic benefits;<sup>5</sup>

7. Encourage the best achievable, appropriate technological innovations;<sup>6</sup> and
8. Follow an open, democratic, policy development process.

The order of the criteria is deliberate. It is intended to hint at the overall priorities that should guide good public energy policy.<sup>7</sup> In Criteria 1 and 2 minimize risks means reducing them to acceptably low levels. It assumes that all outcomes, however (un)desirable are uncertain. Criterion 1 however has more scientific backing, e.g., in the scientific consensus on global warming, than does 2; for economics is a far less certain discipline than the ecological sciences. Criterion 3 is a reformulation of the classic political philosophical norm, seek the common good. Here however the common good of U.S. society, which is the mandated concern of the U.S. government, is assumed to involve the welfare of other nations beyond its jurisdictional authority; for U.S. energy policy affects many other countries. Accordingly, satisfying the VI criteria will involve the U.S. in negotiations with other nations. Criterion 4 is an updating of the ancient maxim of using the known to reduce the uncertainties of the unknown. Criteria 5 and 6 set out synergies which public policies should seek to emulate to the fullest degree feasible. Criterion 7 focuses attention on the practices that energy policy seeks to influence, viz., those involving technological change. It hints at the fact that energy policy involves the social and ethical control of complex Technology Networks, a complex and difficult question in itself.<sup>8</sup> The first seven criteria are results focused. Together they make the VI framework a problem solving, outcomes oriented approach to political ethics. Process considerations mostly arise in criterion 8, which denotes the democratic consensus common to modern democracies like the U.S., that public policy development should be an open, democratically representative and accountable political process. By democracy I mean the forms of government in modern, large scale representative democracies, such as are in OECD member nations. The position of criterion 7 at the end of the criteria list implies that process norms are here deemed secondary to outcomes. This is of course debatable, along with every other criterion and the whole framework; but the point is to clarify the assessment framework I am assuming, and thereby enable readers to apply it themselves and test it, and, indeed, to modify and improve it, as they see appropriate.

As a set the eight VI criteria assume what both the NEPD and the CEF reports assume, a degree of pragmatism. Public policy is developed in the actual contexts of modern democracies as they function, however dysfunctional and inadequate their processes may be. The VI framework implies, in the particular instance of U.S. energy policy, that those processes need significant improving, from both democratic and problem solving terms, goes without saying. But the VI framework does not imply my acceptance of any theoretical, ethical, or ideological commitments, only those that arise from a comparison of the NEPD and CEF strategies in the light of the eight VI criteria, as explained above. I recognize that each of these criteria and the whole framework is debatable. None mention any specific ideological position.<sup>9</sup> Exactly. The glaring lack of such debate in modern democracies about these critical questions is, in large part, the point of this paper.

## 2. The NEPD Energy Supply Increase (ESI) Strategy

President George W. Bush's national energy policy initiative began with his statement to the American public, claiming that:

We are now in an energy crisis. I'm interested in getting more energy supply, so that business can grow and people can heat their homes. We've got a shortage of energy in America.<sup>10</sup>

Implicitly, Mr. Bush is framing the solution to the energy problem in supply oriented, ESI terms. In expanding on the President's statement, Vice-President Dick Cheney reinforces the ESI message, and downplays the conservation option:

Some groups are suggesting that the government step in to force Americans to consume less energy as if we could simply conserve or ration our way out of the situation we are in. Conservation is an important part of the total effort, but to speak exclusively of it is to duck the tough issues. ...But I'm also going to say as plainly as I can, we won't conserve our way to energy independence. We must also increase supply.<sup>11</sup>

Claiming that he was "responding to realities", Mr. Bush rejected the option of regulating power plant CO<sub>2</sub> emissions, a view supported by the mining lobby and the U.S. Chamber of Commerce. Mr. Bush also eschewed requiring improved auto and truck fuel efficiency to reduce energy demand. Rather he deemed tax relief as the "quickest way to help consumers with high energy costs, despite the risks of deficit and inflation."<sup>12</sup> Indeed tax cuts, education, medicare, social security and religious involvement in education and social assistance were President Bush's priorities when he took office in early 2001, not energy or the environment.<sup>13</sup>

In May, 2001 the Vice President restated the administration's view that energy demand will increase significantly in the coming decades. Accordingly, the U.S. needs 38,000 miles of new natural gas pipelines and 1300 to 1900 new electric power plants and called for increased reliance on coal and nuclear energy, and relaxed enforcement of the Clean Air Act on the U.S.'s power plants and oil refineries, even though many of them violate its air pollution standards.<sup>14</sup>

The Bush administration sees the energy problem in mainly economic terms. "The aim here is efficiency, not austerity." Vice President Dick Cheney said.<sup>15</sup> This message was reinforced by Ari Fleischer, the White House Press Secretary, when he said, "The strength of the economy, and the way of life [Americans] have come to enjoy." Indeed Mr. Bush withdrew U.S. support from the Kyoto global warming treaty in late March, because it "makes no economic sense. I will not accept a plan that will harm our economy and hurt American workers." Accordingly, he would not require people to reduce energy demand or constrain their affluent life style. Seelye 30 Mar.

Despite the proclamation of an energy crisis, Mr. Bush slashed Department of Energy spending on R&D into energy efficient buildings, autos, appliance standards by 15%—even though that approach might yield near \$200 billion in savings. And he softened Mr. Clinton's low cost program of increased energy efficiency for clothes washers, water heaters and air conditioners. Some observers felt it would save the equivalent of 170 300 megawatt power plants.

Conservation is a private, personal virtue for Mr. Bush. His Texas home is a model of green efficiency, with water recycling, a geothermal heat pump, and high efficiency central air conditioning, as is the Vice President's official residence.<sup>16</sup>

In May Mr. Bush created a National Energy Policy Development (NEPD) Group to develop a comprehensive energy strategy, which would address demand, supply, and development (of most sources of energy: oil and gas, nuclear, coal, solar, wind, biomass, and hydro), modernize energy distribution networks, and reduce U.S. dependence on foreign energy sources. Mr. Cheney, who chaired the NEPD group, said, “part of our task is to focus on reality, [not] well, gee, we’ll conserve our way out, we don’t have to produce any more, or wind and solar will take care of it, so we don’t need fossil fuels anymore.”<sup>17</sup>

*Reliable, Affordable and Environmentally Sound Energy for America’s Future*, the NEPD Group’s report, covers a wide range of energy questions; but its main thrust is on increasing energy supply: in power plants, nuclear, and fossil fuels (gas, oil and coal), and on expanding fuel pipelines and electricity networks. Thus it exemplifies an ESI approach to the problem. It also calls on the Federal Energy Regulatory Commission to enhance competition in electricity markets (but not to intervene to mitigate price volatility in deregulated markets, as California demanded).<sup>18</sup>

The NEPD report does however suggest \$420 million in tax credits for low income heating, solar energy, home insulation, support for Energy Star construction programs and product labelling, on more efficient appliances, and for energy impact assessment of government programs. \$200 million a year is proposed for clean coal technology research, and \$1.2 billion for “environmentally safe ways of finding the energy we need.” It also advocates R&D into innovative and alternative energy technologies, including nuclear, hydrogen, fusion, wind, solar, and ethanol. It supports increasing fuel efficiency in vehicles and gas / fuel cell hybrid systems (cf. the Toyota Prius), wherever “technologically feasible and economically justified”; but no performance standards or targets are specified.

Nor does the NEPD group propose targets for increasing vehicle and appliance energy efficiency and reducing greenhouse gas emissions. They note the environmental risks of increased emissions of SO<sub>2</sub>, nitrogen oxide and mercury, but not CO<sub>2</sub>. Indeed the report questions the scientific consensus that global warming is serious. And it rejects a ‘carbon tax’ on fossil fuel consumption and stricter environmental and conservation regulatory standards. Instead the NEPD group calls for deregulation so as to facilitate oil and gas exploration in protected conservation areas, such as the Alaska wild life refuge, so as to increase supply. Recently Mr. Bush reinforced the latter option “as a matter of national security,” as well as being “good for jobs.”<sup>19</sup> The report also calls for international cooperation and ‘deregulating’ access to foreign energy sources, e.g., by ending sanctions on Iran and Iraq, and advancing the integration of North American energy networks.

The NEPD’s ESI emphases on fossil fuel and energy supply do seem to reflect the close ties of the Bush administration to oil, gas, coal and electric utility energy interests, many of whom contributed generously to Bush’s election campaign.<sup>20</sup> David Koch of Kansas Energy for example contributed \$484,500 to the Bush campaign. His company paid a \$30 million fine for 300 oil spills from leaking pipelines, and faced 97 counts of violating federal clean air and hazardous waste laws.<sup>21</sup> In June however Mr. Bush backed away somewhat from drilling in Alaska, and acknowledged global warming is a problem after consulting leading scientists.<sup>22</sup>

But many have criticized the Bush regime's national energy strategy for favoring corporate interests, and more specifically, the fossil fuel industry group.<sup>23</sup>

Predictably, Democrats opposed the NEPD approach. House Leader Richard Gephardt felt that it “was crafted behind closed doors with a lot of input from energy executives.” He also noted its energy supply focus on oil, coal and nuclear sources, and the absence of defined commitments to conservation and alternative energy.

Democrats claimed that a more balanced energy strategy was being developed in President Clinton's administration. It supported conservation and efficiency, renewable solar and wind technologies, and opposed exploration and drilling in conservation areas like the ANWR. Under Mr. Clinton the EPA sought to reduce pollutant emissions from outdated technologies in power plants, pursued lawsuits against 32 electric utilities, and sought to reduce refinery SO<sub>2</sub> and nitrogen oxide emissions by 70%<sup>24</sup> They charged that the Bush regime was rolling back Mr. Clinton's proposals for regulatory standards for light trucks and SUVs, estimated to save perhaps 1.2 million bpd of oil by 2008; and his call for a 30% efficiency increase in air conditioners over five years, which Mr. Bush would reduce to 20%.

A SUV owner told a *Newsweek* reporter, Americans "have the right to do what we want and buy what we want. Isn't that why we're fighting" [terrorism] (in Begley S. (2001, November 19). Driving toward independence. *Newsweek*. 42-43.)?

Democrats charge that Mr. Bush's ESI policy reflects his close ties to the oil, gas, and coal industries. House Minority leader Richard Gephardt said the NEPD report “looks like the annual report of Exxon Mobil.” Drilling in the ANWR would not yield oil for years, and then only 140 days supply.<sup>25</sup>

President Jimmy Carter replied to Mr. Bush's criticisms of his energy policy by claiming that he faced a more serious energy crisis in the late 1970s; for

Iran and Iraq wanted to shut off 4 million bpd in oil. The price doubled in 12 months, causing energy shortages and inflation. the Congress worked with the White House for four years to create a balanced approach, emphasizing conservation and supply, improving insulation, savings in industrial technology and home appliances, and increased auto gas mileage?<sup>26</sup>

Current world petroleum supplies, Bush claimed—incredibly—, are adequate, for reserves are plentiful and price changes are cyclical. Mileage averaged 12 mpg in 1976, when Bush became President. Since 1980 gas prices have declined about 40% in real terms; but now, in 2011, they are up, and climbing. In spring 2002, as I write, oil is around \$26 a barrel. Under Mr. Carter U.S. government spending on energy efficiency and renewable energy peaked, but has since declined to one third of its former high. In early April, 2001 Mr. Carter and others published an open letter criticizing Mr. Bush's withdrawal from the Kyoto treaty, and calling on him to reduce US greenhouse gas emissions.<sup>27</sup> That call is still relevant, for inaction, if not disdain, on the shift off fossil fuels and toward greener energy is shockingly still the conventional political response.

Even moderate Republicans were unhappy about Bush's weak positions on conservation and the environment, his backtracking on a campaign promise to establish mandatory reduction targets for four key pollutants (SO<sub>2</sub>, nitrogen oxides, mercury, and CO<sub>2</sub>), his refusal to treat it as a pollutant, and to reduce greenhouse gas emissions. They also oppose drilling in the ANWR.<sup>28</sup> Republican Governor, George Pataki, announced a Clean Energy strategy for New York state, imposing energy efficiency standards on new government construction projects, including power plants. It requires state facilities to be 10% renewable energy driven by 2005 and 20% by 2010.<sup>29</sup>

Environmentalists and energy experts are critical of its ESI approach. The NEPD group only consulted them once in contrast to frequent discussions with energy industry representatives. The Environmental Defence Fund said the NEPD report offers nothing that would bring down greenhouse gas emissions. Stricter fuel efficiency requirements for cars, SUVs, and trucks could, they claim, save over 1 million bpd of oil. Robert Redford warned that drilling in Alaska would sacrifice the largest U.S. wildlife refuge for a mere six months of energy, benefiting only the oil industry; but, he added.<sup>30</sup>

The Sierra club questioned whether Mr. Bush's approach is balanced, noting that he has cut renewable energy research spending in the Department of Energy's budget, loosened EPA protection of public lands, weakened the Endangered Species Act, diluted standards governing arsenic in drinking water, allowed more clear cutting in national forests, and backtracked on making polluters pay for site clean ups. "You can summarize the President's energy policy as real men dig, drill and burn, and conservation is for wimps." Said Philip E. Clapp, President of the National Environmental Trust.<sup>31</sup> And that's still the excuse for an energy policy in North America.

David G. Hawkins, Director of Natural Resource Defence Council, criticized the \$2 billion subsidy that the NEPD proposed for "the world's dirtiest fuel—coal," support for exploration in protected federal lands, increased reliance on fossil fuels, the rollback of clean air regulations, and the vague support for efficiency and renewable energy. Its proposals, he feels, could increase global warming levels by 35% over the next 20 years. Nor does the NEPD report oppose Mr. Bush's cuts to the DoE's energy efficiency and renewable energy programs, or support bipartisan legislation imposing tax incentives and performance standards to reduce electricity and gas consumption in construction, and omits any mention of fuel efficiency targets for vehicles. Hawkins labeled the NEPD's support for weakening the 30% air conditioning efficiency improvement standard, "indefensible"; for, he estimates, that action alone could cost \$18 billion in higher energy bills over the next 25 years. A 3% increase in the efficiency of tires, Hawkins noted, would save more oil than drilling in Alaska.<sup>32</sup>

Nor is it true that all businesses support the ESI approach. "It's unfortunate," adds Robert Redford, "that all business gets painted as wanting to oppose the environment and slow change." And many firms do support the environmental protection and energy conservation orientation of the CEF approach.<sup>33</sup> Chevron estimated it realized \$100 million in savings through on site electricity generation based on waste recycling.<sup>34</sup> Shell Oil has created a \$500 million renewable energy company. BP is the world's largest producer of solar energy systems. Ford, Daimler Benz, GM and Texaco all have invested millions in fuel cells development, a technology led by Vancouver based Ballard Power Systems. Several large companies, including IBM, Polaroid,

and Dupont, are committed to reducing their greenhouse gas emissions to pre Kyoto levels over the next decade and to conservation and using renewable energy.<sup>35</sup>

In ranking economic growth above the environmental values, the ESI approach does seem to reflect a similar ambivalence and uncertainty among Americans themselves. Their main concerns, a September, 2000 *Washington Post* Moral Values poll showed, were education, healthcare, social security, the economy, taxes, medicare, moral values and crime. Neither energy nor the environment topped the list. But a mid May NYT poll 94% of poll respondents felt there was a serious energy crisis. By early June another *Washington Post* poll found support for Mr. Bush's energy and environmental policies declining.<sup>36</sup> U.S. per capita energy consumption is much higher than many OECD nations (and Canada's is even higher).<sup>37</sup> Even today. The situation is worsening, rather than improving.

While many Americans favour energy conservation, they also love big cars and large houses. The average American consumes twice the energy of an average European. As Maureen Dowd observed, "We want big we want fast we want now... We don't have limits. We have liberties. We are America."<sup>38</sup> Madness. And still a common piece of 'conventional' thinking, or the lack of it. Such conventional thinking is folly, not wisdom.

A key U.S. energy policy concern is of course its high dependence on foreign suppliers, but international support for the the NEPD's ESI strategy is lukewarm. In Canada it is seen as one more U.S. move toward a continental energy policy that treats Canada and Mexico as domestic sources, merely to support wasteful U.S. practices.<sup>39</sup> The Canadian government still supports Kyoto as a basis for moving on the global warming problem, despite serious reservations.

Others have responded more constructively to the global warming oil addiction crisis. Germany's packaging law already requires the recycling of auto parts. Europeans too have their doubts about the NEPD's ESI approach. Energy consumption in many European nations is half of the U.S. rate. In addition, fact Holland, Germany, and Britain are already committed to reducing CO<sub>2</sub> emissions 50% to 80% over the next few decades. Romano Prodi, the EU Commission President, even questioned the U.S. claim to leadership. There can be no real leadership with out responsibility. Combating climate change is not just about costs. It represents an opportunity for new technologies and a chance to modernize our economies.<sup>40</sup>

## 2 The Department of Energy's Clean Energy Future (CEF) Approach

In November, 2000 the Department of Energy quietly published a quite different, barely remarked, report, *Scenarios for A Clean Energy Future*.<sup>41</sup> Its main conclusions were that:

- A range of smart public policies can significantly reduce CO<sub>2</sub> missions, air pollution, petroleum dependence, and inefficiencies in energy production and use: efficiency standards, increased R&D, conservation, voluntary agreements, carbon trading, etc.
- The overall economic benefits of the CEF approach, e.g., in energy savings, appear comparable to the costs.
- Uncertainties in the CEF scenario are unlikely to alter the overall conclusions.



In contrast to the NEPD group the CEF report focuses on specific conservation measures to drastically reduce fossil fuel use and significantly increase energy efficiency. Furthermore, it anticipates significant breakthroughs in advanced gas, chemical and carbon separating technologies, hybrid electric systems using wind power, solar, gas turbines, and “a host of highly efficient ..renewable energy technologies.” It touches on a range of policy instruments, such as fiscal and tax incentives to encourage energy efficiency and conservation, and tougher regulations specifying appropriate performance targets and standards for vehicles, appliances, buildings, electricity generation, and domestic and international carbon emissions trading systems. It also proposes public/private partnerships, voluntary initiatives to reduce CO<sub>2</sub> emissions, improve air quality, oil security and economic efficiency, notably in the electricity sector, and government support for related R&D.

To make its case the CEF report compares several scenarios to 1990 energy use: the 1997 Kyoto proposals, a Business As Usual (BAU) until 2020 strategy, and advanced CEF 2020 scenario (see Table 1). The NEPD's ESI model most resembles BAU, for it calls for more oil, gas, coal and nuclear energy supply, less government regulation, and few constraints on the current wasteful U.S. life style. BAU however would mean a 36% increase in energy use and 34% cost increase over 1990 levels, and a 43% CO<sub>2</sub> emission rise. Even the Advanced cEF 2020 scenario would still increase energy use by 15% over 1990 and costs by 11%, but not greenhouse gas emissions (see Table 1). New business and technologies are however expected to counterbalance dislocations in the old.

| Table 1<br>(Source: U.S. Dept. of Energy) |      | Scenarios for Clean Energy Future: 1990 to 2020 |                              |                      |  |
|-------------------------------------------|------|-------------------------------------------------|------------------------------|----------------------|--|
| Year / Scenario →                         | 1990 | 1997<br>(Kyoto)                                 | Business As<br>Usual to 2020 | Advanced,<br>to 2020 |  |
| US Energy Use (Quadrillion BTU)           | 84   | 94 (+12%)                                       | 120 (+36%)                   | 97 (+15%)            |  |
| US Energy Bill (\$ billions)              | 516  | 552 (+7%)                                       | 694 (+34%)                   | 572 (+11%)           |  |
| Us Carbon Emssn (million metric tonnes)   | 1346 | 1480 (+10%)                                     | 1922 (+43%)                  | 1347 (+0%)           |  |

By 2020, the CEF report suggests, new technologies could reduce electricity demand by 20% to 47%, or the equivalent of from 265 to 610 300 MW power plants. Encouraging the adoption of other innovations, such as new fluorescent lamps (¼ of 150 watt bulb), low flow shower heads, high efficiency furnaces, and better housing insulation, could reduce demand by nearly one half.<sup>42</sup>

The CEF 2020 scenario recommends regulations to reduce home power consumption and encourage shifts to alternative energy sources like wind, solar and ethanol, improving old inefficient and dirty power plants, and creating emissions trading markets. Such moves, it notes,

should enhance energy security and environmental protection while reaping economic benefits comparable to their costs.

But the NEPD and CEF 2020 reports both take a long term 20 year perspective on public energy policy, and they agree on several points: U.S. energy supply may be inadequate to expected needs, the U.S. is over-dependent on foreign petroleum sources, there are serious inefficiencies in energy production and distribution systems, and energy policy should support economic growth. These shared views are assumed henceforward.

#### 4. A Final Assessment: CEF+

The continuing addiction to oils suggest that what is fossilized is our society and our elites, as well as our addiction to oil based fuel systems. What is needed is a shift to green clean energy, and the new innovative economics it involves. The only question is when, not whether, and how much we will lose, in climate change, technological Innovations and economic growth by stalling and delaying the inevitable. Given the instability of many oil producing regions, continuing reliance on fossil fuels threatens our political security and stability too. One of the best ways of guaranteeing national security, Al Gore claims, is to decrease our dangerous dependence on foreign oil so that America cannot be held hostage to oil imports"(Gore, 2002). Gore, A. (2002, April 23). *The Selling of an Energy Policy*. NYT: wk 13. This has become truer now that the fossil fuel driven global warming crisis is posing an increasingly critical threat to modern civilizatio. The shift to a greener environmental and energy economics is necessary, for it, Gore says, can yield "recored growth coupled with record improvement in the air we breathe." Gore charged that Bush's energy policies "are completely dominated by a bunch of oil and chemical company executives' who would sabotage government efforts to stop global warming. (Gore, 2002)

As Al Gore said of Rachel Carson in his recent introduction to *Silent Spring*, she "brought us back to a fundamental idea lost ...in modern civilization: the interconnected of human beings and the natural environment."<sup>43</sup> The SCEF approach better approximates an integrated energy policy model that would better address global warming. It would also, Al Gore maintains, help the U.S. to lead the world in developing environmentally friendly technological innovations, which would also "open the door to economic growth"(Gore, 2002).

First, there is an energy and global warming crisis. Oil supply estimates are hotly debated (Campbell, and Laherriere, 1998; Andersen, 1998). And there is the problem of high U.S. per capita energy consumption, at over 300 btu per person. It is well above other OECD nations, like Japan (128), France (145), the UK (150), Germany (179), Holland (189), Sweden (266), but not Canada (400); (Cahn, 2000, 107). U.S. vehicle fuel economy peaked at 26.2 mpg in 1987, but is now down to 24.5 mpg (Bradsher, May 18, 2001). Except for Germany Denmark and Sweden, fossil fuel consumption is increasing across the globe (BP, 2001). The U.S. consumes 25% of world oil (Schwartz, Nov. 12, 2001; Banerjee, Oct. 14, 2001).

Proven world reserves are about 1 trillion barrels, with around 68% in the Middle East, and only 3% in the U.S). The U.S. relies on imports for the other 60%, up from 47% a decade ago, with 13.7% coming from Persian Gulf states. U.S. reserves would last about 53 days (down from 82

days a decade ago). On the other hand there are about 300 billion barrels of relatively cheap oil in Alberta's tar sands—equal to Saudi Arabia's known reserves.

The U.S. has only 3% of world known oil reserves, and imports account for 60% of consumption (up from 47% 10 years ago). Persian gulf sources represent only 13% of the total. Estimates of economically recoverable petroleum supplies vary widely, but if one considers the 300 billion barrels in Syncrude's Alberta's tar sands—equal to Saudi Arabia's known reserves—North America has a relatively cheap source of oil supply. The high prices in first quarter 2001 reflected the winter cyclical peak in heating oil production. Even then in fall 2001 oil prices declined to around \$22 a barrel.<sup>44</sup> Thus doubts about a fossil fuel supply crisis seem warranted. Vehicle fuel economy peaked at 26.2 mpg in 1987, but is now down to 24.5 mpg. Raising average vehicle fuel consumption to 40 mpg by 2020 could save over 2 million bpd in oil.<sup>45</sup> But some foreign firms, like Toyota and Honda, are improving fuel efficiency on their own initiative. The U.S. is moreover the leading world source of greenhouse gases like CO<sub>2</sub>, methane and nitrous oxide. With 4% of world population, the U.S. emits 23% of world CO<sub>2</sub>.<sup>46 47</sup>

Political ethics is instead concerned about how governments fulfill their responsibilities to the people respecting the delivery of public goods. Since they usually number in the millions, democratic rulers can not personally know or be related to most citizens. Governing a society of 280 million people can not be a personal affair or a matter of face to face relationships, among friends or family. Indeed to confuse the two and reduce politics to private personal terms, may not only trivialize political ethics, it may also reinforce the widespread concern that politics is corrupt. Elected officials in Washington are nonetheless politically accountable to the people, and are responsible for their welfare. To that end they should develop policies that define and effectively secure key public goods.

Despite objections about his trivialization of conservation, Vice President Cheney's famous remark did tacitly distinguish political ethics and personal virtue. Energy policy, he implied, correctly, should be oriented to the good of U.S. society as a whole over the long term. It should secure what Aristotle called the common good, or: "what is for the benefit of the whole state and ...of its citizens."

On the other hand, one must question the close ties of the Bush administration and the NEPD group to narrow private energy industry interests. They do seem to violate Madison's warning against factions, and to undermine the NEPD group's claim to define the common good or public interest of the U.S. people respecting energy policy.<sup>48</sup> This is worse than bankrupt. The growing global warming crisis makes such comments socially and morally irresponsible.

That judgement applies, I submit, to the supply side / fossil fuel bias of the NEPD report. Its ESI approach resembles what the CEF report calls Business As Usual. The NEPD group furthermore eschewed recommending aggressive government policies to effectively restrain wasteful energy practices. One effect of the Bush administration's BAU approach and Mr. Cheney's alleged dichotomy between efficiency and austerity, would be to support Americans' current highly wasteful energy consumption habits. Indeed concern for the public good leads one to question the apparent unwillingness of the NEPD group to aggressively minimize with energy waste and related environmental protection risks, e.g., by recommending strict regulatory standards to increase energy efficiency and recycling, to reduce demand, and to cut emissions of

CO<sub>2</sub>, SO<sub>2</sub>, nitrogen oxides, and other critical pollutants. Indeed their support of increased reliance on fossil fuels and nuclear energy risk would likely increase risks to national security, by rendering the U.S. more vulnerable to terrorist attacks.

From a values integration perspective one should seek a comprehensive, balanced approach to ending our addiction to oil and shifting to green energy sources. We must reject the false dichotomy between energy conservation and economic austerity, which is implicit in the NEPD model. The CEF 2020 green energy scenario in contrast rejects the assumption that economic growth involves trade offs against the costs of energy demand reduction and environmental protection. The CEF strategy instead targets both the supply increase and demand reduction sides of energy policy, calls for an aggressive shift away from environmentally risky fossil fuels and pollutants, toward alternative and renewable green, clean energy sources, including conservation. This comprehensive approach would, it claims, spur technological innovation and yield significant economic benefits. The economic benefits, it estimates, would equal the costs (and perhaps outweigh them). In sum, CEF 2020 better balances environmental protection, energy market dynamics, technological innovation, and economic growth, while seeking to minimize the related risks of economic costs, energy insufficiency and inefficiency, and environmental damage.

Instead of selectively choosing supportive findings, the CEF 2020 scenario accepts the best available scientific and technical knowledge re global warming and alternative energy systems. Nor does it limit itself to market incentives and deregulatory instruments. Rather it proposes a full suite of fiscal, regulatory, interventionist and market based policy mechanisms. This suite of policy mechanisms would help orient private choices to support the public interest. It would also put the U.S. into a credible international leadership position on an advanced energy efficiency and conservation strategy, one that is integrated with environmental protection.

On the political ethical grounds of the common good, values integration and minimizing risks, then, the CEF 2020 scenario seems preferable to the NEPD approach to U.S. energy policy over the next 20 years. The United States, this ethics assessment indicates, should choose the CEF 2020 scenario over than the ESI approach of the NEPD. But that assessment also suggest that CEF 2020 may not be enough; for, as Table 1 shows, it does not even bring the U.S. back to 1990 energy use and environmental impact levels.

To adequately reduce the serious risks of global warming and other environmental harms, and to ensure relatively cheap and clean energy for the U.S. over the next 20 years, Washington may have to set much more ambitious energy efficiency and environmental protection goals. A far more aggressive Clean Energy Future scenario, or CEF Plus, will likely be required; but it may take somewhat longer to achieve. So by 2030, I suggest, the United States should try to reduce its overall energy consumption by 50%, and by 75% for risky energy sources like fossil fuels and nuclear. This is not as impossible as it may seem. Technologies are already being developed that might halve vehicle fuel consumption and allow buildings to produce 120% of energy demand, contributing the surplus to the general electricity grid.<sup>49</sup> Finally, CEF+ would ensure U. S. leadership in the environmental and energy fields, and reinforce its influence with other nations in moving toward similar goals. That level of leadership surely is the politically and ethically preferable option for the world's leading high tech democracy.

### Abbreviations Used

|                 |   |                                                   |
|-----------------|---|---------------------------------------------------|
| bpd             | = | Barrels per day                                   |
| CEF             | = | Clean Energy Future (scenario)                    |
| CO <sub>2</sub> | = | Carbon Dioxide                                    |
| ESI             | = | Energy Supply Increase (scenario)                 |
| GM              | = | The Globe and Mail (Toronto)                      |
| NEPD            | = | National Energy Policy Development (Group/Report) |
| NYT             | = | New York Times                                    |
| SO <sub>2</sub> | = | Sulphur Dioxide                                   |
| WP              | = | Washington Post                                   |

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## ENDNOTES

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<sup>1</sup> J. Kahn. (2001). Cheney promotes increasing supply as energy policy. NYT, 1 May. This paper will follow European ideological nomenclature: socialist (statist), liberal (free market), conservative (Tory). On that reading the modern welfare state is a form of broad ranging social democracy that combines open market economic policies, with fiscal responsibility and a wide range of social policies, as one finds in Sweden, Germany, Britain, and, to a lesser extent, Canada and the U.S. On Canada see my: Business Ethics in Canada: Distinctiveness and Directions. (1997) *Journal of Business Ethics*. 16:6, 583-590.

<sup>2</sup> Such criticisms echo long standing social democratic critiques of *laissez-faire* free market liberalism and influence of corporate elites on government policies, as found for instance in E. Cahn. *Environmental Deceptions*. (2000). Cambridge: Cambridge Univ. Press; and G. A. Gonzalez. (2001). *Corporate Power and the Environment*. Lanham, Md:Rowman and Littlefield. While I agree with both authors that economic elites have immense influence on public policy in modern nations, I do not agree with inferences to neo-Marxian class theory, or to an impotent state. Rather, I would hold that major social elites always hold greater social power than other interest groups, and that governments nonetheless enjoy significant power of their own. OECD member states are themselves major economic agents, for their activities represent on average over 30% of GNP. On

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- 9 See Paehlke, ch. 7. And Vincent di Norcia. (1975). From Critical Theory to Critical Ecology. *Telos*, ... ? I deliberately eschew using words ending in 'ism', since their meanings are uncontrollably fluid and intrinsically controversial. Most debates, e.g., about politics and markets, furthermore reflect their 19th century origins, and tend to blind one to the disruptive new perspectives that the ecological crisis may be forcing on us.
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